

## **REMARKS**

Applicant wishes to thank the Examiner for the attention accorded to the instant application, and respectfully requests reconsideration of the application as amended.

### **Formal Matters**

In this Response, claims 23, 24, and 26-36 are pending; claim 23 is amended to more clearly recite the invention, and claim 28 is amended to modify its dependency. Claims 1-19, 21-22, 25 and 37-40 are canceled; claim 20 is withdrawn. Claims 41-46 are added. Support for amended claim 23 as well as new claims 41-45 can be found in the specification on page 20, lines 1-18. Support for new claim 46 can be found in the specification on page 22, lines 20-24. No new matter has been added.

Applicant respectfully requests that the Examiner review and consider the references cited in the Information Disclosure Statement (IDS) filed on February 24, 2004 with the application, as well as the IDS filed January 11, 2006, and the IDS filed April 24, 2006.

### **Claim Objections**

Claims 27 and 28 are objected to because it appears that "pipeline" should be "pipeline stage". Applicant amended claims 27 and 28 to change "pipeline" to "pipeline stage" in the Response filed May 21, 2007. The amendment is reflected in the claims filed herewith. Withdrawal of this objection is respectfully requested.

### **Rejection of Claims Under 35 U.S.C. §102**

Claim 9 is rejected under 35 U.S.C. § 102(b) as anticipated by Hammond, et al., U.S. Patent No. 5,774,686 (hereinafter "Hammond"). Claim 9 is canceled, and applicant respectfully requests that this rejection be withdrawn.

**Rejection of Claims 1, 3, 4, 6-8, 21-37, 40 Under 35 U.S.C. §103**

Claims 1, 3-4, 6-8, 21-37 and 40 are rejected under 35 U.S.C. § 103(a) as unpatentable over Hammond in view of Trivedi, et al., U.S. Patent No. 6,430,674 (hereinafter "Trivedi"). This rejection should be withdrawn based on the comments and remarks herein.

The present invention recites, in amended claim 23, a processor that comprises a first arithmetic unit performing an arithmetical operation executing only the first decoded result executed by a first execution controller, and a shared arithmetic unit performing an arithmetical operation executing the first decoded result executed by the first execution controller or the second decoded result executed by the second execution controller that is provided separately from the first execution controller.

By contrast, Hammond discloses, in Figure 8, an execution unit 840 executing x86 and 64-bit instructions, and register files 850 and 855 storing the values related to the x86 and 64-bit instructions. More specifically, Hammond teaches that the register files 850 and 855 have the function of storing the values related to the x86 and 64-bit instructions (column 14, lines 14-16). Even assuming that the register files 850 and 855 of Hammond could perform an arithmetic operation, corresponding to the first arithmetic unit of the present invention, the instruction unit 203 of Hammond executes both x86 and 64-bit instructions using the execution unit 870 in shared use, so that the register files 850 and 855 do not perform the arithmetic operation relative to the execution of a first decoded result. Hence, Hammond does not disclose or suggest an arithmetic unit that performs an arithmetical operation relative to the execution of the first decoded result, as recited in independent claim 23.

Trivedi does not overcome this deficiency. Trivedi discloses a processor 104 comprising a plurality of multiplexer/execution units 305 as well as a multiplexer connected to multi-stage

execution units 304 that execute instructions. Trivedi does not disclose or suggest an arithmetic unit that performs an arithmetical operation relative to the execution of only the instruction or first decoded result, or a shared arithmetic unit performing an arithmetical operation relative to execution of the instruction by one or more of the execution units 304, as recited in independent claim 23. Thus, the hypothetical combination of Hammond and Trivedi does not disclose each and every feature recited in independent claim 23.

It has been held by the courts that to establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. See, *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). As illustrated above, the hypothetical combination of Hammond and Trivedi lacks an arithmetic unit that performs an arithmetical operation relative to the execution of the first decoded result, and does not disclose or suggest each and every feature of the present invention as recited in independent claim 23. Thus *prima facie* obviousness has not been established. Accordingly, claim 23 is distinguishable over the art of record in the application. Claims 24 and 26-36 depend from claim 23, incorporating all of the features and limitations in claim 23. Hence, claims 24 and 26-36 are patentably distinguishable over the art of record in the application for at least the reasons that claim 23 is patentably distinguishable over the art of record in the application. Claims 1, 3, 4, 6-8, 21-22, 25, 37 and 40 are canceled. Accordingly, withdrawal of this rejection is requested.

#### **Rejection of Claim 5 Under 35 U.S.C. §103**

Claim 5 is rejected under 35 U.S.C. § 103(a) as unpatentable over Hammond in view of Trivedi, in view of Dalvi, U.S. Patent No. 6,167,529. Claim 5 is canceled, and applicant respectfully requests that this rejection be withdrawn.

**Rejection of Claims 10-12 Under 35 U.S.C. §103**

Claims 10-12 are rejected under 35 U.S.C. § 103(a) as unpatentable over Hammond in view of Glass, U.S. Patent No. 5,774,686. Claims 10-12 are canceled, and applicant respectfully requests that this rejection be withdrawn.

**Rejection of Claims 38-39 Under 35 U.S.C. §103**

Claims 38 and 39 are rejected under 35 U.S.C. § 103(a) as unpatentable over Hammond in view of Kahle, U.S. Patent No. 6,725,354. Claims 38 and 39 are canceled, and applicant respectfully requests that this rejection be withdrawn.

**Conclusion**

For at least the reasons set forth in the foregoing discussion, Applicant believes that the Application is now allowable, and respectfully requests that the Examiner reconsider the rejection and allow the Application. Should the Examiner have any questions regarding this Amendment, or regarding the Application generally, the Examiner is invited to telephone the undersigned attorney.

Respectfully submitted,



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